



February 28, 2007

Charles L.A. Terreni  
Chief Clerk and Administrator  
South Carolina Public Service Commission  
Post Office Drawer 11649  
Columbia, South Carolina 29211

Re: Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc.  
Power Plant Performance Report (January 2007)  
Docket No. \_\_\_\_\_

Dear Mr. Terreni:

Enclosed are an original and one copy of the Power Plant Performance Report for Carolina Power & Light Company d/b/a Progress Energy Carolinas, Inc. for the month of January 2007.

Sincerely,

s/ Len S. Anthony

Len S. Anthony  
Deputy General Counsel – Regulatory Affairs

LSA/dhs  
Enclosures  
45612

c: John Flitter (ORS)

January 2007

The following units had no off-line outages during the month of January:

Brunswick Unit 1  
Brunswick Unit 2  
Harris Unit 1  
Robinson Unit 2  
Mayo Unit 1  
Roxboro Unit 3  
Roxboro Unit 4

January 2007

Roxboro Unit 2

Full Forced Outage

- A. Duration: The unit was taken out of service at 09:20 on January 10, and returned to service at 00:00 on January 12, a duration of 38 hours and 40 minutes.
- B. Cause: Circulating Water Pump Leak
- C. Explanation: The unit was taken out of service to investigate and repair a leak in a boiler circulating water pump.
- D. Corrective Action: Corrective maintenance activities were conducted to repair the leak in the water pump, outage activities were completed, and the unit was returned to service.

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	938 MW		938 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	717,820 MWH		7,195,849 MWH		2
Capacity Factor	102.86 %		87.57 %		
Equivalent Availability	99.04 %		85.49 %		
Output Factor	102.86 %		100.90 %		
Heat Rate	10,262 BTU/KWH		10,347 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	792,437	9.64	3
Partial Scheduled	3,006	0.43	30,302	0.37	4
Full Forced	0	0.00	292,813	3.56	5
Partial Forced	0	0.00	60,218	0.73	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,872		8,216,880		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

\*\* Gross of Power Agency

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	937	MW	937	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	697,731	MWH	7,348,514	MWH	2
Capacity Factor	100.09	%	89.53	%	
Equivalent Availability	98.35	%	88.39	%	
Output Factor	100.09	%	98.37	%	
Heat Rate	10,433	BTU/KWH	10,542	BTU/KWH	
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	231,001	2.81	3
Partial Scheduled	7,786	1.12	95,656	1.17	4
Full Forced	0	0.00	506,464	6.17	5
Partial Forced	0	0.00	82,379	1.00	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	697,128		8,208,120		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

\*\* Gross of Power Agency

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	900 MW		900 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	691,771 MWH		7,029,567 MWH		2
Capacity Factor	103.31 %		89.16 %		
Equivalent Availability	100.00 %		88.40 %		
Output Factor	103.31 %		100.79 %		
Heat Rate	10,642 BTU/KWH		10,850 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	829,590	10.52	3
Partial Scheduled	0	0.00	1,224	0.02	4
Full Forced	0	0.00	79,650	1.01	5
Partial Forced	0	0.00	75,203	0.95	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	669,600		7,884,000		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

\*\* Gross of Power Agency

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	710	MW	710	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	560,132	MWH	6,439,850	MWH	2
Capacity Factor	106.04	%	103.54	%	
Equivalent Availability	100.00	%	99.09	%	
Output Factor	106.04	%	104.19	%	
Heat Rate	10,584	BTU/KWH	10,751	BTU/KWH	
	<u>MWH</u>	<u>% of Possible</u>	<u>MWH</u>	<u>% of Possible</u>	
Full Scheduled	0	0.00	0	0.00	3
Partial Scheduled	0	0.00	12,767	0.21	4
Full Forced	0	0.00	38,802	0.62	5
Partial Forced	0	0.00	4,782	0.08	6
Economic Dispatch	0	0.00	0	0.00	7
Possible MWH	528,240		6,219,600		8

\* See 'Notes for Nuclear Units' filed with the January 2007 report.

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	745	MW	745	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	359,702	MWH	4,322,120	MWH	2
Capacity Factor	64.90	%	66.23	%	
Equivalent Availability	92.89	%	91.31	%	
Output Factor	64.90	%	70.37	%	
Heat Rate	10,586	BTU/KWH	10,652	BTU/KWH	
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	330,469	5.06	3
Partial Scheduled	38,868	7.01	75,821	1.16	4
Full Forced	0	0.00	40,130	0.61	5
Partial Forced	533	0.10	120,870	1.85	6
Economic Dispatch	155,176	28.00	1,636,790	25.08	7
Possible MWH	554,280		6,526,200		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

\*\* Gross of Power Agency



	Month of January 2007		Twelve Month Summary		See Notes*
MDC	670	MW	670	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	302,964	MWH	4,672,602	MWH	2
Capacity Factor	60.78	%	79.61	%	
Equivalent Availability	86.48	%	93.51	%	
Output Factor	78.81	%	83.02	%	
Heat Rate	9,498	BTU/KWH	9,375	BTU/KWH	
	<u>MWH</u>	<u>% of Possible</u>	<u>MWH</u>	<u>% of Possible</u>	
Full Scheduled	0	0.00	55,175	0.94	3
Partial Scheduled	41,490	8.32	222,907	3.80	4
Full Forced	25,907	5.20	97,318	1.66	5
Partial Forced	0	0.00	5,703	0.10	6
Economic Dispatch	128,119	25.70	815,496	13.89	7
Possible MWH	498,480		5,869,200		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	707	MW	707	MW	1
Period Hours	744	HOURS	8,760	HOURS	
Net Generation	393,613	MWH	3,747,208	MWH	2
Capacity Factor	74.83	%	60.50	%	
Equivalent Availability	96.65	%	79.95	%	
Output Factor	74.83	%	73.06	%	
Heat Rate	10,267	BTU/KWH	10,214	BTU/KWH	
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	1,064,729	17.19	3
Partial Scheduled	0	0.00	48,895	0.79	4
Full Forced	0	0.00	0	0.00	5
Partial Forced	17,628	3.35	127,903	2.07	6
Economic Dispatch	114,767	21.82	1,201,732	19.40	7
Possible MWH	526,008		6,193,320		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

	Month of January 2007		Twelve Month Summary		See Notes*
MDC	700 MW		700 MW		1
Period Hours	744 HOURS		8,760 HOURS		
Net Generation	336,360 MWH		4,016,315 MWH		2
Capacity Factor	64.59 %		65.50 %		
Equivalent Availability	100.00 %		95.68 %		
Output Factor	64.59 %		66.40 %		
Heat Rate	10,405 BTU/KWH		10,559 BTU/KWH		
	MWH	% of Possible	MWH	% of Possible	
Full Scheduled	0	0.00	77,770	1.27	3
Partial Scheduled	0	0.00	161,015	2.63	4
Full Forced	0	0.00	5,600	0.09	5
Partial Forced	0	0.00	20,567	0.34	6
Economic Dispatch	184,440	35.41	1,850,734	30.18	7
Possible MWH	520,800		6,132,000		8

\* See 'Notes for Fossil Units' filed with the January 2007 report.

\*\* Gross of Power Agency

### NOTES FOR FOSSIL UNITS

1. Maximum Dependable Capacity (MDC) in MW: The gross electrical output measured at the output terminals of the turbine generator, during the most restrictive seasonal conditions, minus the normal station service loads.
2. MWH Generated in the Period: The gross electrical output measured at the output terminals of the turbine generator, minus the normal station service loads, during the gross hours of the reporting period.
3. MWH Not Generated Due to Full Scheduled Outages: Calculated by multiplying the full scheduled outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage. However, if the system load was such that the total output of the unit would not be required (due to economic dispatch), the actual MWH not generated due to the outage would be less.
4. MWH Not Generated Due to Partial Scheduled Outages: Calculated by multiplying the partial scheduled outage hours by the MW derating (as reported to NERC). Also included is an estimate of the MWH not generated while reducing power to take the unit off line for a full scheduled outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
5. MWH Not Generated Due to Full Forced Outages: Calculated by multiplying the full forced outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage. However, if the system load was such that the total output of the unit would not have been required (due to economic dispatch), the actual MWH not generated due to the outage would be less.

6. MWH Not Generated Due to Partial Forced Outages: Calculated by multiplying the partial forced outage hours by the MW derating (as reported to NERC). Included is an estimate of the MWH not generated while reducing power to take the unit off line for a full forced outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
7. MWH Not Generated Due to Economic Dispatch: Included is an estimate of the MWH not generated due to the unit not being in demand on a System Dispatch basis. System dispatch takes into consideration the reliability and stability of the system as well as economic dispatch since consideration must be given to the mix of generation on line at any one point in time. Also included are estimates of the MWH not generated due to plant conditions (not defined by NERC), which occur from time to time such as: high backpressure, silica in boiler water, phosphate water treatment carryover, instrumentation calibration, and equipment testing.
8. Total MWH Possible in Period: Calculated by multiplying MDC by hours in period.



### NOTES FOR NUCLEAR UNITS

1. Maximum Dependable Capacity (MDC) in MW: The gross electrical output measured at the output terminals of the turbine generator, during the most restrictive seasonal conditions, minus the normal station service loads.
2. MWH Generated in the Period: The gross electrical output measured at the output terminals of the turbine generator, minus the normal station service loads, during the gross hours of the reporting period.
3. MWH Not Generated Due to Full Scheduled Outages: Calculated by multiplying the full scheduled outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage. However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
4. MWH Not Generated Due to Partial Scheduled Outages: Calculated by multiplying the partial scheduled outage hours by the MW derating (as reported to NERC). Also included is an estimate of the MWH not generated while reducing power to take the unit off line for a full scheduled outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
5. MWH Not Generated Due to Full Forced Outages: Calculated by multiplying the full forced outage hours (breaker to breaker as reported to NERC) by the MDC rating. This assumes that the unit would be in demand at the time of the outage.

6. MWH Not Generated Due to Partial Forced Outages: Calculated by multiplying the partial forced outage hours by the MW derating (as reported to NERC). Included is an estimate of the MWH not generated while reducing power to take the unit off line for a full forced outage and the MWH not generated while bringing the unit back to power after the outage (Ramp Time). Also included are estimated of the MWH not generated due to plant conditions (not defined by NERC) which occur from time to time such as: preconditioning of fuel, excessive cooling water temperature, and off-peak equipment testing required by the NRC. However, if the system load was such that the total output of the unit would not have been required, the actual MWH not generated due to the outage would be less.
7. MWH Not Generated Due to Economic Dispatch: Included is an estimate of the MWH not generated due to the unit not being fully in demand based on system load conditions. Also included is the MWH not generated on the nuclear plants due to fuel limitations in the cores or the fuel being “stretched” to meet refueling outages.
8. Total MWH Possible in Period: Calculated by multiplying MDC by hours in period.

Plant	Unit	Current MW Rating	January 2006 - December 2006	January 2007	January 2007 - January 2007
Asheville	1	198	72.44	72.54	72.54
Asheville	2	194	60.37	51.50	51.50
Cape Fear	5	143	72.32	72.83	72.83
Cape Fear	6	173	65.99	63.75	63.75
Lee	1	79	47.56	36.94	36.94
Lee	2	76	43.52	42.81	42.81
Lee	3	252	60.06	52.20	52.20
Mayo	1	745	67.04	64.90	64.90
Robinson	1	174	78.19	90.38	90.38
Roxboro	1	385	77.79	69.62	69.62
Roxboro	2	670	81.26	60.78	60.78
Roxboro	3	707	59.60	74.83	74.83
Roxboro	4	700	65.20	64.59	64.59
Sutton	1	97	44.30	40.96	40.96
Sutton	2	106	46.43	44.90	44.90
Sutton	3	410	54.54	67.38	67.38
Weatherspoon	1	49	36.15	39.67	39.67
Weatherspoon	2	49	37.40	36.90	36.90
Weatherspoon	3	78	50.52	62.04	62.04
Fossil System Total		5,285	65.25	64.29	64.29
Brunswick	1	938	87.51	102.86	102.86
Brunswick	2	937	89.68	100.09	100.09
Harris	1	900	89.16	103.31	103.31
Robinson Nuclear	2	710	103.59	106.04	106.04
Nuclear System Total		3,485	91.80	102.88	102.88
Total System		8,770	75.80	79.63	79.63



Amended SC Fuel Rule  
Related to Nuclear Operations

There shall be a rebuttable presumption that an electrical utility made every reasonable effort to minimize cost associated with the operation of its nuclear generation system if the utility achieved a net capacity factor  $\geq 92.5\%$  during the 12 month period under review. For the test period April 1, 2006 through January 31, 2007, actual period to date performance is summarized below:

Period to Date: April 1, 2006 to January 31, 2007

Nuclear System Capacity Factor Calculation (Based on net generation)

A. Nuclear system actual generation for SCPSC test period	A =	23,617,937	MWH
B. Total number of hours during SCPSC test period	B =	7,344	hours
C. Nuclear system MDC during SCPSC test period (see page 2)	C =	3,485	MW
D. Reasonable nuclear system reductions (see page 2)	D =	2,380,111	MWH
E. SC Fuel Case nuclear system capacity factor: $[(A+D) / (B+C)] * 100 =$			
101.6%			

NOTE:

If Line Item E  $\geq 92.5\%$ , presumption of utility's minimum cost of operation.

If Line Item E  $< 92.5\%$ , utility has burden of proof of reasonable operations.

Amended SC Fuel Rule  
Nuclear System Capacity Factor Calculation  
Reasonable Nuclear System Reductions  
Period to Date: April 1, 2006 to January 31, 2007

Nuclear Unit Name and Designation	BNP Unit # 1	BNP Unit # 2	HNP Unit # 1	RNP Unit # 2	Nuclear System
Unit MDC	938 MW	937 MW	900 MW	710 MW	3,485 MW
Reasonable refueling outage time (MWH)	160,194	0	829,590	0	
Reasonable maintenance, repair, and equipment replacement outage time (MWH)	316,218	772,939	80,268	45,402	
Reasonable coast down power reductions (MWH)	2,692	3,591	0	0	
Reasonable power ascension power reductions (MWH)	24,530	84,173	4,019	3,791	
Prudent NRC required testing outages (MWH)	18,223	27,288	36	6,384	
SCPSC identified outages not directly under utility control (MWH)	0	0	0	0	
Acts of Nature reductions (MWH)	0	0	0	774	
Reasonable nuclear reduction due to low system load (MWH)	0	0	0	0	
Unit total excluded MWH	521,857	887,991	913,913	56,351	
Total reasonable outage time exclusions [carry to Page 1, Line D]					2,380,111